



Blood Donation Management System

Internship Work Documentation

Domain: MySQL

Submitted by:

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About This Internship

As part of my internship with **ARTTIFAI TECH**, I developed a **Blood Donation Management System** using **MySQL, PHP, and HTML/CSS**.

The aim of this project is to provide real-time management of blood donors, recipients, donation records, blood bank inventory, and automated stock updates through triggers and dynamic processing.

This work helped me understand:

- MySQL database design and management
 - Backend development with PHP
 - Dynamic frontend integration
 - Real-time data processing, validation & reporting
-

About This Document

This PDF contains **screenshots captured during the entire project development**, including:

- Database & table creation
- Sample data insertions
- Trigger executions
- Query outputs and reports

These screenshots serve as proof of **query execution** and **workflow demonstration**.

The **live working** of the system has also been recorded and is included separately as a **video file** (**ExecutionVideo.mp4**) in this submission.

localhost / 127.0.0.1 | phpMyAdmin

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0026 seconds.)

```
-- Create the database CREATE DATABASE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
-- Use the database USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0273 seconds.)

```
CREATE TABLE Donors ( DonorID INT AUTO_INCREMENT PRIMARY KEY, Name VARCHAR(100) NOT NULL, Age INT CHECK (Age >= 18), BloodGroup VARCHAR(3) NOT NULL, Contact VARCHAR(15) NOT NULL, LastDonationDate DATE );
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0021 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0209 seconds.)

```
CREATE TABLE Recipients ( RecipientID INT AUTO_INCREMENT PRIMARY KEY, Name VARCHAR(100) NOT NULL, Age INT, BloodGroup VARCHAR(3) NOT NULL, Contact VARCHAR(15) NOT NULL, BloodRequired INT NOT NULL CHECK (BloodRequired > 0) );
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0265 seconds.)

```
CREATE TABLE BloodInventory ( BloodGroup VARCHAR(3) PRIMARY KEY, UnitsAvailable INT NOT NULL DEFAULT 0 );
```

[Edit inline] [Edit] [Create PHP code]

8 rows inserted. (Query took 0.0076 seconds.)

```
INSERT INTO BloodInventory (BloodGroup, UnitsAvailable) VALUES ('O+', 0), ('A+', 0), ('B+', 0), ('AB+', 0), ('O-', 0), ('A-', 0), ('B-', 0), ('AB-', 0);
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin +

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0238 seconds.)

```
CREATE TABLE Donations ( DonationID INT AUTO_INCREMENT PRIMARY KEY, DonorID INT, BloodGroup VARCHAR(3) NOT NULL, DonationDate DATE NOT NULL, FOREIGN KEY (DonorID) REFERENCES Donors(DonorID) );
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin +

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0169 seconds.)

```
CREATE TABLE Requests ( RequestID INT AUTO_INCREMENT PRIMARY KEY, RecipientID INT, BloodGroup VARCHAR(3) NOT NULL, UnitsRequested INT NOT NULL, Status VARCHAR(20) DEFAULT 'Pending', FOREIGN KEY (RecipientID) REFERENCES Recipients(RecipientID) );
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin +

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0216 seconds.)

```
CREATE TRIGGER AfterDonationInsert AFTER INSERT ON Donations FOR EACH ROW BEGIN UPDATE BloodInventory SET UnitsAvailable = UnitsAvailable + 1 WHERE BloodGroup = NEW.BloodGroup; END;
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin +

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

1 row inserted.
Inserted row id: 1 (Query took 0.0104 seconds.)

```
INSERT INTO Donors (Name, Age, BloodGroup, Contact, LastDonationDate) VALUES ('Rahul Sharma', 28, 'O+', '9876543210', '2025-03-01');
```

[Edit inline] [Edit] [Create PHP code]

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
USE BloodDonationDB;
```

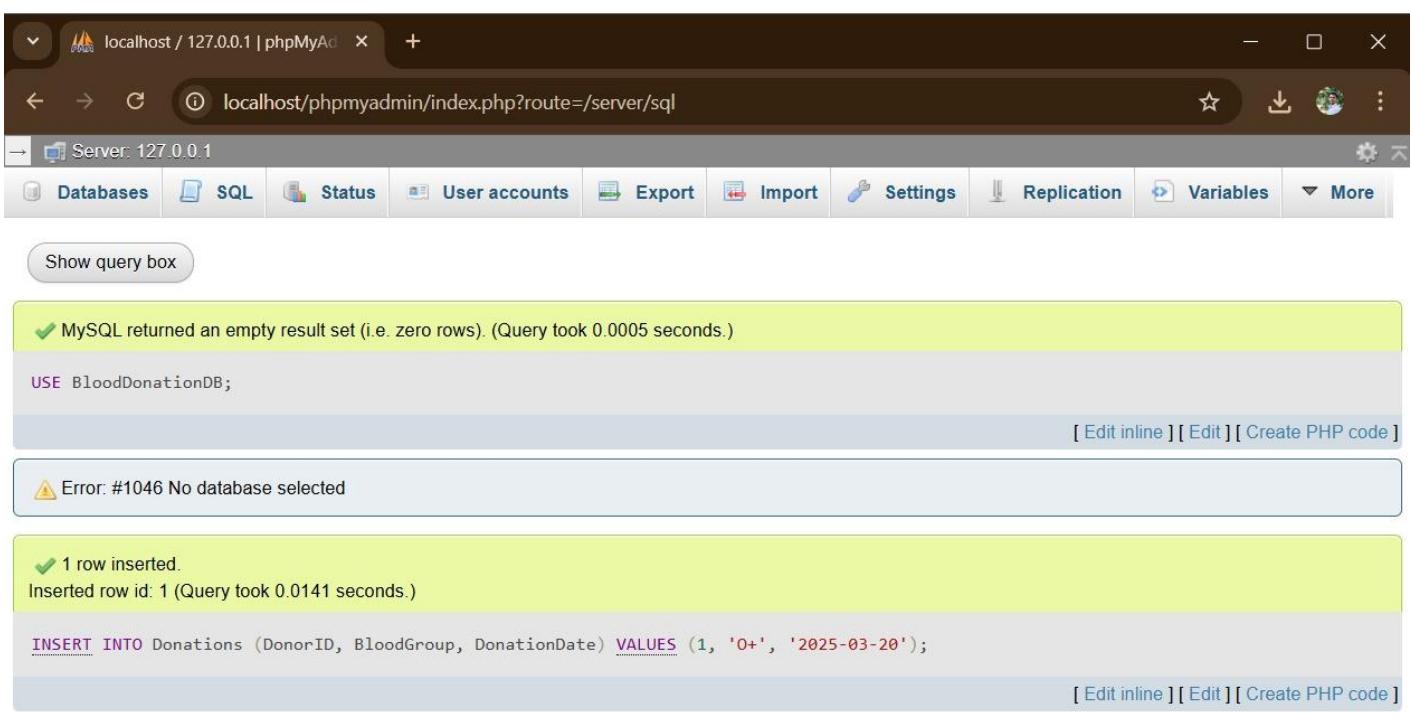
[Edit inline] [Edit] [Create PHP code]

⚠ Error: #1046 No database selected

✓ 1 row inserted.
Inserted row id: 1 (Query took 0.0104 seconds.)

```
INSERT INTO Recipients (Name, Age, BloodGroup, Contact, BloodRequired) VALUES ('Aditi Verma', 35, 'O+', '9898989898', 2);
```

[Edit inline] [Edit] [Create PHP code]



localhost / 127.0.0.1 | phpMyAdmin

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

⚠ Error: #1046 No database selected

✓ 1 row inserted.
Inserted row id: 1 (Query took 0.0141 seconds.)

```
INSERT INTO Donations (DonorID, BloodGroup, DonationDate) VALUES (1, 'O+', '2025-03-20');
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 | phpMyAdmin

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

USE BloodDonationDB;

[Edit inline] [Edit] [Create PHP code]

Error: #1046 No database selected

Showing rows 0 - 0 (1 total, Query took 0.0006 seconds.)

SELECT UnitsAvailable FROM BloodInventory WHERE BloodGroup = 'O+';

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table

Extra options

UnitsAvailable

Edit Copy Delete

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table

localhost / 127.0.0.1 | phpMyAdmin

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

UnitsAvailable

Edit Copy Delete

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table

Query results operations

Print Copy to clipboard Export Display chart Create view

1 row affected. (Query took 0.0033 seconds.)

UPDATE BloodInventory SET UnitsAvailable = UnitsAvailable - 2 WHERE BloodGroup = 'O+';

[Edit inline] [Edit] [Create PHP code]

0 rows affected. (Query took 0.0014 seconds.)

UPDATE Requests SET Status = 'Approved' WHERE RequestID = 1;

[Edit inline] [Edit] [Create PHP code]

0 rows affected. (Query took 0.0005 seconds.)

UPDATE Requests SET Status = 'Rejected' WHERE RequestID = 1;

[Edit inline] [Edit] [Create PHP code]

Console

localhost / 127.0.0.1 | phpMyAdmin +

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

USE BloodDonationDB;

[Edit inline] [Edit] [Create PHP code]

⚠ Error: #1046 No database selected

Showing rows 0 - 7 (8 total, Query took 0.0075 seconds.)

SELECT * FROM BloodInventory;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

Extra options

	BloodGroup	UnitsAvailable
<input type="checkbox"/>	A+	0
<input type="checkbox"/>	A-	0
<input type="checkbox"/>	AB+	0
<input type="checkbox"/>	AB-	0
<input type="checkbox"/>	B+	0
<input type="checkbox"/>	B-	0
<input type="checkbox"/>	O+	-1
<input type="checkbox"/>	O-	0

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

localhost / 127.0.0.1 | phpMyAdmin +

localhost/phpmyadmin/index.php?route=/server/sql

Server: 127.0.0.1

Databases SQL Status User accounts Export Import Settings Replication Variables More

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

USE BloodDonationDB;

[Edit inline] [Edit] [Create PHP code]

⚠ Error: #1046 No database selected

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 0 (1 total, Query took 0.0082 seconds.)

SELECT D.Name, DN.BloodGroup, DN.DonationDate FROM Donations DN JOIN Donors D ON DN.DonorID = D.DonorID;

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table

Extra options

Name	BloodGroup	DonationDate
Rahul Sharma	O+	2025-03-20

Show all Number of rows: 25 Filter rows: Search this table

localhost / 127.0.0.1 / blooddonor

localhost/phpmyadmin/index.php?route=/database/structure&db=blooddonationdb

Server: 127.0.0.1 » Database: blooddonationdb

Structure **SQL** **Search** **Query** **Export** **Import** **Operations** **Privileges** **Routines** **Events** **M**

Filters

Containing the word:

Table	Action	Rows	Type	Collation	Size	Overhead	
<input type="checkbox"/> bloodinventory	Browse Structure Search Insert Empty Drop	8	InnoDB	utf8mb4_general_ci	16.0 KiB	-	
<input type="checkbox"/> donations	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	32.0 KiB	-	
<input type="checkbox"/> donors	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 KiB	-	
<input type="checkbox"/> recipients	Browse Structure Search Insert Empty Drop	1	InnoDB	utf8mb4_general_ci	16.0 KiB	-	
<input type="checkbox"/> requests	Browse Structure Search Insert Empty Drop	0	InnoDB	utf8mb4_general_ci	32.0 KiB	-	
5 tables	Sum		11	InnoDB	utf8mb4_general_ci	112.0 KiB	0 B

Check all

Print Data dictionary

Create new table

Table name Number of columns 4

Console

localhost / 127.0.0.1 / blooddonor

localhost/phpmyadmin/index.php?route=/database/sql&db=blooddonationdb

Server: 127.0.0.1 » Database: blooddonationdb

Structure **SQL** **Search** **Query** **Export** **Import** **Operations** **Privileges** **Routines** **Events** **M**

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0005 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0175 seconds.)

```
CREATE PROCEDURE ProcessBloodRequest(IN reqID INT) BEGIN DECLARE bg VARCHAR(3); DECLARE units INT; DECLARE available INT; -- Get BloodGroup and UnitsRequested for this request SELECT BloodGroup, UnitsRequested INTO bg, units FROM Requests WHERE RequestID = reqID; -- Get available stock for that BloodGroup SELECT UnitsAvailable INTO available FROM BloodInventory WHERE BloodGroup = bg; -- Check if stock is enough IF available >= units THEN -- Deduct units from inventory UPDATE BloodInventory SET UnitsAvailable = UnitsAvailable - units WHERE BloodGroup = bg; -- Mark request as Approved UPDATE Requests SET Status = 'Approved' WHERE RequestID = reqID; ELSE -- Mark request as Rejected UPDATE Requests SET Status = 'Rejected' WHERE RequestID = reqID; END IF; END;
```

[Edit inline] [Edit] [Create PHP code]

localhost / 127.0.0.1 / blooddonor

localhost/phpmyadmin/index.php?route=/database/sql&db=blooddonationdb

Server: 127.0.0.1 » Database: blooddonationdb

Structure SQL Search Query Export Import Operations Privileges Routines Events M

Show query box

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0006 seconds.)

```
USE BloodDonationDB;
```

[Edit inline] [Edit] [Create PHP code]

MySQL returned an empty result set (i.e. zero rows). (Query took 0.0013 seconds.)

```
CALL ProcessBloodRequest(1);
```

[Edit inline] [Edit] [Create PHP code]

localhost/blooddonationnaresh/index.php

Blood Donation Management System

User Side Blood Bank Side

Not enough stock! Request ID 9 rejected.

Register Donor

Name
dd-mm-yyyy
Age
-- Blood Group --
Contact
dd-mm-yyyy
Register Donor

Register Recipient

Name
Age
-- Blood Group --
Contact
Units Required
Request Blood

localhost/blooddonationnaresh/index.php

Blood Donation Management System

Internship | Naresh D | B.Tech AI & DS | MKCE Karur | ID: 927623bad067



Naresh D

User Side Blood Bank Side

⚠ Not enough stock! Request ID 9 rejected.

Record Donation

-- Select Donor --

Units Donated

dd - mm - yyyy

Add Donation

localhost/blooddonationnaresh/index.php

Process Request

Request ID

Process

Blood Inventory

Blood Group	Units Available
A+	0
A-	0
AB+	8
AB-	2
B+	5
B-	0
O+	1
O-	0

localhost/blooddonationnaresh/index.php

Donor Statistics

Blood Group	Total Donors
AB+	1
AB-	1
B+	1
O+	3

Donation History

Name	Blood Group	Units	Date
manoj	B+	2	2025-08-13
manoj	B+	1	2025-07-14
Naresh	AB-	2	2025-07-14
Sharma	AB+	1	2025-07-14
Sharma	AB+	1	2025-07-10
Sharma	AB+	1	2025-07-10
Sharma	AB+	1	2025-07-10
Sharma	AB+	1	2025-07-10
Sharma	AB+	1	2025-07-10
Sharma	AB+	1	2025-07-10

Blood Donation Requests				
Name	Blood Group	Units	Date	
Sharma	AB+	1	2025-07-10	
Sharma	AB+	1	2025-07-10	
Rahul Sharma	O+	1	2025-03-20	
Rahul Sharma	O+	1	2025-03-20	
Rahul Sharma	O+	1	2025-03-20	
Rahul	O+	1	2024-07-14	

Requests Status				
Request ID	Name	Blood Group	Units	Status
9	kumar	O-	1	Rejected
8	Anjali	AB-	1	Approved
7	yamuna	A+	2	Rejected
5	sukanth	A+	3	Rejected
4	raman	B+	3	Rejected
3	Aditi	O+	2	Rejected
2	Verma	O+	2	Approved
1	Aditi Verma	O+	2	Rejected

⭐ Thank you for reviewing my work.

Naresh D
Internship Candidate, ARTTIFAI TECH